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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.
08/602,503	02/20/96	BALL	M	2718US

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EXAMINER	
TURNER,K	

ART UNIT	PAPER NUMBER
1107	#10

DATE MAILED: 09/18/97

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Advisory Action

Application No.	Applicant(s)
08/602,503	Ball
Examiner	**Group Art Unit**
Kevin Turner	1107

THE PERIOD FOR RESPONSE: [check only a) or b)]

a) ☒ expires 3 months from the mailing date of the final rejection.

b) ☐ expires either three months from the mailing date of the final rejection, or on the mailing date of this Advisory Action, whichever is later. In no event, however, will the statutory period for the response expire later than six months from the date of the final rejection.

Any extension of time must be obtained by filing a petition under 37 CFR 1.136(a), the proposed response and the appropriate fee. The date on which the response, the petition, and the fee have been filed is the date of the response and also the date for the purposes of determining the period of extension and the corresponding amount of the fee. Any extension fee pursuant to 37 CFR 1.17 will be calculated from the date of the originally set shortened statutory period for response or as set forth in b) above.

☐ Appellant's Brief is due two months from the date of the Notice of Appeal filed on _____ (or within any period for response set forth above, whichever is later). See 37 CFR 1.191(d) and 37 CFR 1.192(a).

Applicant's response to the final rejection, filed on *Sep 8, 1997* **has been considered with the following effect, but is NOT deemed to place the application in condition for allowance:**

☒ The proposed amendment(s):

☒ will be entered upon filing of a Notice of Appeal and an Appeal Brief.

☐ will not be entered because:

☐ they raise new issues that would require further consideration and/or search. (See note below).

☐ they raise the issue of new matter. (See note below).

☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal.

☐ they present additional claims without cancelling a corresponding number of finally rejected claims.

NOTE: _____

☐ Applicant's response has overcome the following rejection(s):

_____

☐ Newly proposed or amended claims _____ would be allowable if submitted in a separate, timely filed amendment cancelling the non-allowable claims.

☒ The affidavit, exhibit or request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See attached response.

☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

☒ For purposes of Appeal, the status of the claims is as follows (see attached written explanation, if any):

Claims allowed: _____

Claims objected to: _____

Claims rejected: *19, 21-23, and 25-34*

☐ The proposed drawing correction filed on _____ ☐has ☐has not been approved by the Examiner.

☐ Note the attached Information Disclosure Statement(s), PTO-1449, Paper No(s). _____ .

☐ Other

Response to Arguments

1. Applicant's arguments filed September 8, 1997 have been fully considered but they are not persuasive. Applicant has asserted that the rejections were based on structures only and not the processes disclosed by the references. This is not understood. In reviewing the rejections, references to process steps are made, and additionally, it must assumed that structures are built by a process given in the patent even though no specific process is detailed in the rejection. Kuroda is illustrative of this point, as Fig. 1 shows one process and Fig. 2 shows another process for forming the same structures shown in Fig. 1(c) and Fig. 2(c) respectively.

2. Applicant is also concerned by the examiner's statement that, with reference to Kuranaga, "chip 1a can be considered another substrate." The statement was made merely to show how the Kuranaga and Kuroda references could be taken together. Applicant also states that Fogel does not teach a chip mounted face down to the substrate with a chip mounted face up to the face down chip. In response, the examiner directs attention to Kuroda, where this is disclosed.

3. Applicant also states that Fogal "rejects" other attachment techniques in favor of wire bonding. The examiner believes, given the language of the patent, that Fogal et al. are not rejecting these other techniques, but merely stating that the invention, of Fogal et al., is specific to the area of wire bonding. The Fogal reference is not precluding the use of flip-chip, TAB, flip-TAB, etc. with the disclosed stacking arrangement. The reference is pointing them out as other analogous packaging methods. The fact that Fogal et al. did not elect to incorporate the teachings of Kuroda or Kuranaga is not dispositive that they are preventing the use of those techniques.

The reference is not seen as teaching away from the combination given the level of ordinary skill in the art.

4. Applicant has also accused the examiner of impermissible hindsight in the combination of references. The examiner asserts that the references must be considered from the view of a practitioner of ordinary skill in the art and take into account the knowledge that such a practitioner would bring to bear in considering all of the references. A useful way to visualize this process was given by Judge Rich in considering an obviousness rejections:

> "Appellant presents the usual argument that hindsight reconstruction has been employed by the examiner and the board. We disagree with that position. We think the proper way to apply the 103 obviousness test to a case like this is to first picture the inventor as working in his shop with the prior art references-which he is presumed to know-hanging on the walls around him. . . . Thus does appellant make his claimed invention merely by applying knowledge clearly present in the prior art. Section 103 requires us to presume full knowledge by the inventor of the prior art in the field of his endeavor. We see no "hindsight reconstruction" here, but only selection and application by the examiner of very pertinent art. That is his duty."

In re Winslow, 151 USPQ 48, 51 (CCPA 1966).

It is also allowed that Winslow was modified by the court which decided it, in In re Antle, 444 F.2d 1168, 170 USPQ 285 (CCPA 1971), where it was pointed out that the prior art on the wall consists only of those patents one of ordinary skill in the art would have selected without the

advantage of hindsight or knowledge of the invention. In the instant case, all of the references would considered, as they all fall within field of endeavor of an ordinary skilled artisan in the packaging of semiconductor devices. In considering multichip modules, and given the references of Kuroda, Kuranaga, and Fogal, it would be obvious to combine the references using the motivations supplied in the §103 rejections, even considering the statement of Fogal that he is applying his invention only to wire bonding of modules.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Kevin Turner whose telephone number is (703) 305-2689. The examiner can normally be reached on Monday through Friday from 7:30 AM -5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Niebling, can be reached on (703) 308-3325. The fax numbers for this group are (703)305-3599 and (703)305-3600.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-0661.

John Niebling
Supervisory Primary Examiner
Art Unit 1107

Kevin F. Turner
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September 17, 1997